

Work Order ID 109193-42 SPW

November-14-13 7:06.26 AM

109193

Page 1

Item ID: D4857-1

Accept

N9000040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Outer Deflector, LH

Start Date: 11/14/13 Start Qty: 10.00

10

Required Date: 11/22/13 Req'd Qty: 10.00

10

Cust Item ID:

Customer:

Reference:

Approvals: Process Plan: *W*

Date:

Tooling:

Date:

Run Start *NR1*

QC:

Date:

SPC (Y/N):

Date:

Stop *NR2*

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID Tool # Plan
Code Accept Reject
Qty Qty Number Insp.
Stamp

Draw Nbr

Revision Nbr

D4857

100

0.00

100

Purchasing

Purchasing

Memo

0.00

Issue P/O: 22063

Possible supplier: CARBON BY DESIGN

Manufacture as per dwg

Prime Deflector as per dwg (SEE NOTE 4)

Certificate of Conformity release note is required.

13/11/14 *WJF*

110

Receive & Inspect for Damage & Mat'l Certs

0.00

110

Packaging

Packaging

Memo

0.00

12/1/13 (4)

Work Order ID 109193

November 14-13 7:06:26 AM

109193

Page 2

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Required Date: 11/22/13 Req'd Qty: 10.00

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Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start *NR1*

QC:

Date:

SPC (Y/N):

Date:

Stop *NR2*

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID Tool # Plan
Code Accept Reject Reject Insp.
Qty Qty Number Stamp

120

QC5- Inspect part completeness to step on W/O

0.00

120

QC

Memo

0.00

Quality Control

DAS
27
9-89

13/12/13

4

130

Identify as per dwg & Stock Location 87228 0.00

130

Packaging

Memo

0.00

Packaging

DAS
26
9-89

4x

140

QC21- Final Inspection - Work Order Release 0.00

140

QC

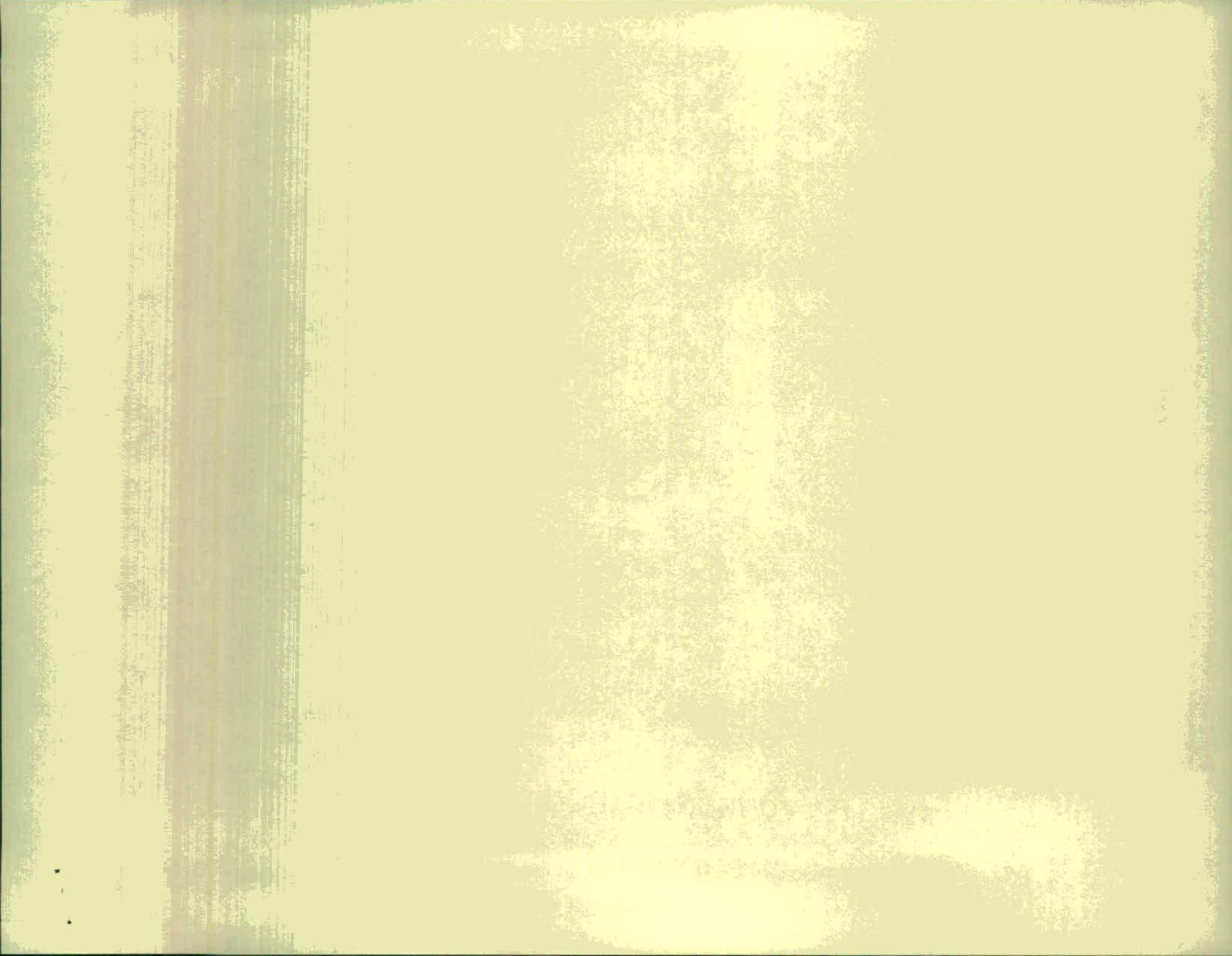
Memo

0.00

Quality Control

13/12/13

MB-12-5



Picklist Print

November 14-13 7:06:26 AM

Page 1

Work Order ID: 109193

Parent Item: D4857-1

Parent Item Name: Outer Deflector, LH

Start Date: 11/14/13

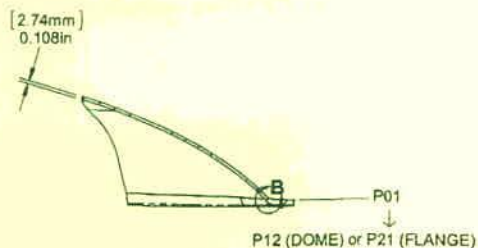
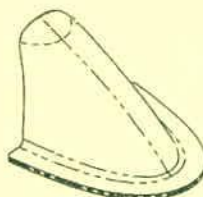
Required Date: 11/22/13

Start Qty: 10.00

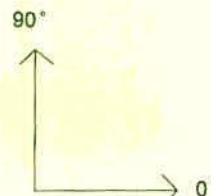
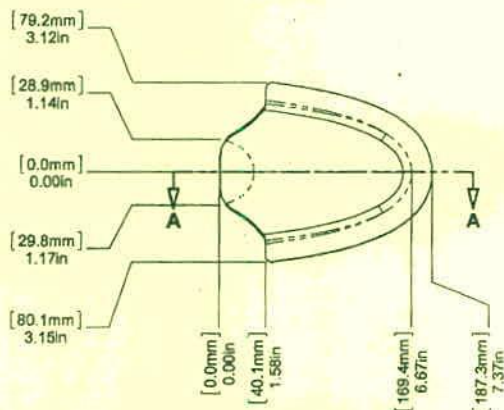
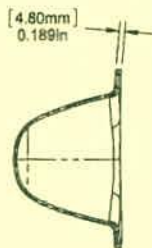
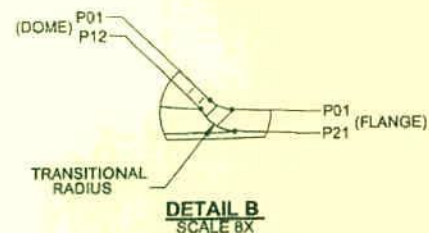
Required Qty: 10.00

Comments: IPP REV:A NEW ISSUE 13.10.18 DD VERIFIED BY:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D4857-1P Wiper Deflector		Purchased	No				Each	0.0000		10		11/3/13 (4)	



SECTION A-A
SCALE 1X



alo
10/19/93

D4857-1 WIPER DEFLECTOR

RELEASED
R 2013-10-09
AF

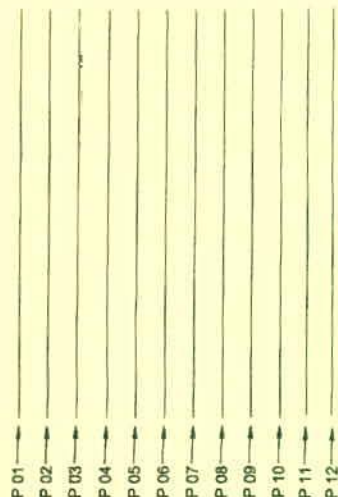
NOTES:

- 1 MATERIAL: KEVLAR #285/353 4H SATIN, EPOXY PREPREG, 250°F CURE, 40% R/C
- 2 MATERIAL: CARBON FIBER PREPREG, ALDILA PREPREG SYSTEM 3K2X2-FR250-204/40 T300.
- 3 MATERIAL: ALDILA #120 E-GLASS AR250 WITH 48% RC;
- 4 FINISH: PRIMER IAW MIL-P-85582, 2-7 MIL MAX;
- 5 TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 6 UNITS: INCHES UNLESS OTHERWISE NOTED, ALL METRIC DIMENSIONS ARE REFERENCE DIMENSIONS.
- 7 BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 8 IDENTIFICATION: BAG AND IDENTIFY WITH DART P/N D4857-1, AGUSTA P/N "TBD", REVISION AND BATCH NUMBER AS PER QSI 044 METHOD 6.7
- 9 WEIGHT: 0.35 lbs (.16 kg)
- 10 PART DIMENSIONS CONTROLLED BY CAD MODEL FILE D4857-1-b.IGES
- 11 SEE PAGE 2 FOR LAYUP SCHEDULE. MANUFACTURE IAW MPP 145. CURE 250°F FOR 4 HOURS.

B	REVISED BOM, DRAWING VIEWS, NOTES	PB	13.08.13
A	NEW RELEASE	DB	13.05.23
REV.	DESCRIPTION	BY	DATE
DESIGN	DB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	DB		
CHECKED	A.P.	DRAWING NO.	REV. B
MFG. APPR.	al	D4857	SHEET 1 OF 2
APPROVED	al	TITLE	SCALE
DE APPR.	al	WIPER DEFLECTOR	NTS
DATE	13.08.13	<small>COPYRIGHT © 2013 BY DART AEROSPACE LTD THIS DOCUMENT IS UNCLASSIFIED AND IS AVAILABLE TO THE PUBLIC. IT IS NOT TO BE USED FOR ANY PURPOSE OR FOR ANY REPRODUCTION TO THE PUBLIC WITHOUT THE WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

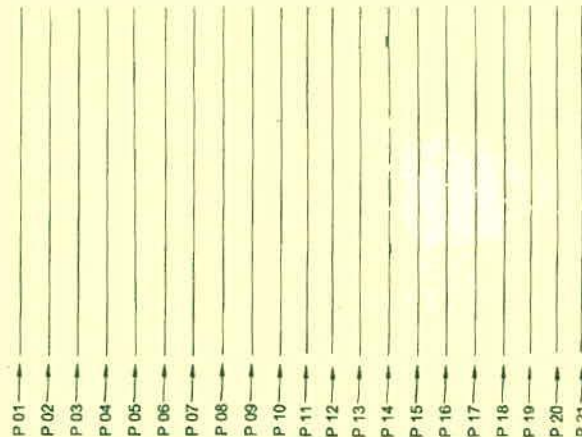
THE UNIVERSITY OF CHICAGO

1875



LAYUP OF LAYERS (DOME)

LAMINATE - .108in (12 LAYERS)			
PLY	WARP ANGLE	MATERIAL	THICKNESS
01	90	1	.008-.010
02	0	1	.008-.010
03	90	2	.008-.010
04	0	2	.008-.010
05	90	2	.008-.010
06	0	2	.008-.010
07	90	2	.008-.010
08	0	2	.008-.010
09	90	2	.008-.010
10	0	2	.008-.010
11	90	2	.008-.010
12	0	2	.008-.010



LAYUP OF LAYERS (FLANGE)

LAMINATE - .189in (21 LAYERS)			
PLY	WARP ANGLE	MATERIAL	THICKNESS
01	90	1	.008-.010
02	0	1	.008-.010
03	90	2	.008-.010
04	0	2	.008-.010
05	90	2	.008-.010
06	0	2	.008-.010
07	90	2	.008-.010
08	0	2	.008-.010
09	90	2	.008-.010
10	0	2	.008-.010
11	90	2	.008-.010
12	0	2	.008-.010
13	90	2	.008-.010
14	0	2	.008-.010
15	90	2	.008-.010
16	0	2	.008-.010
17	90	2	.008-.010
18	0	2	.008-.010
19	90	2	.008-.010
20	0	2	.008-.010
21	90	3	.005

RELEASED
2013-10-09

DESIGN	DB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	DB		
CHECKED	A.P.	DRAWING NO.	REV. B
MFG. APPR.	21	D4857	SHEET 2 OF 2
APPROVED	12	TITLE	SCALE
DE APPR.	11	WIPER DEFLECTOR	NTS
DATE	13.08.13	COPYRIGHT © 2013 BY DART AEROSPACE LTD THIS DOCUMENT IS UNCLASSIFIED AND IS AVAILABLE TO THE PUBLIC ON REQUEST OF THE NOT TO BE USED FOR ANY PURPOSE OR COPIED OR REPRODUCED IN ANY MANNER WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO22061**

Purchase Order Date 11/14/2013

PO Print Date 11/26/2013

Page Number 1 of 1

Order From :

VU-CBD001

Ship To : DART AEROSPACE LTD

CARBON BY DESIGN
4128 AVENIDA DE LA PLATA
OCEANSIDE, CALIFORNIA 92056
USA

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone 760-643-1300

Ship To Contact

Ship To Phone

Ship Via: FedEx PI collect

Ship Acct:

Buyer

Customer POID

Customer Tax # 10127-2607

Terms Net 30

Currency USD

FOB FCA - (Free Carrier)

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extende Pric
2	D4857-1P	Wiper Deflector	11/28/2013 Yes 11/28/2013		4.00 Each	\$550.00	\$2,200.0
	D4857-1P		12/12/2013 12/12/2013		6.00 Each	\$550.00	\$3,300.0
	AS PER DWG D4857 REV.B B109193						
Line Total:							\$5,500.0
PO Total:							\$5,500.0

Note: Pricing listed above is as per contract agreement between Dart Aerospace and the respective manufacturer.

No substitution or deviation without consent.

Certificate of Conformity or Material Certification required ☒ YES ☐ NO

PST# 6122-5207

Change Nbr:

3

Change Date: 11/26/2013



carbon by design

4128 Avenida De La Plata - Oceanside, CA 92056

Phone: 760-643-1300 Fax: 760-643-1333

www.carbonbydesign.com

Packaging List

Date: 11/27/2013

Packaging List No. 15875

Cage Code: 4DG17

CBD Work Order No. 7450

Customer PO No.: PO22061

Billing Address:

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
613-632-5200
Fed-Ex shipping #15179324-0

Please Deliver To:

Dart Aerospace LTD
1270 Aberdeen
Hawkesbury, ON K6A 1K7
Canada

Customer Phone	Terms	Rep	Ship Date	Ship Via	Buyer
613-632-5200	Net 30	JB	11/27/2013	FedEx Next Day	Customer

Item	Line #	Description	Qty
D4857-1		Dart, D4857-1, Rev. B, Wiper Deflector S/N: 15875-1/15875-4	4

Pricing Good For 30 Days

Total Items: 4

SHIPPING VALUE
\$2,200.00

CERTIFICATE OF CONFORMANCE (SHORT FORM CUSTOMERS ONLY)

I certify that on _____, the Carbon by Design LP furnished the supplies or services called for by the Purchase Order Above via Delivery in accordance with all applicable requirements.

I further certify that the supplies or services are of the quality specified and conform in all respects with the contract requirements, including specifications, drawings, preservation, packaging, packing, marking requirements, and physical item identification, and are in the quantity shown in this or on the attached acceptance document.

Quality: _____ Date: _____

WARNING - This document and its attachments may contain technical data, export of which is restricted by the International Traffic in Arms Regulations (ITAR) or the Export Administration Act (EAA) of 1979, as amended. Disclosure to foreign persons without prior U.S. Government approval is prohibited. Violations of these export laws and regulations are subject to severe civil and criminal penalties.

**carbon by design**

11/27/2013

CERTIFICATE OF CONFORMANCE

PO: No.: 22061	DESC: Wiper Deflector	Insp: JB/JR	Packing #: 15875
Customer: Dart Aerospace Ltd	Drawing: D4857 Rev B	Qty: 4	Serials: 15875-1/15875-4

Work Requirements:

Statement of Work: SOW on file
Internal Process Doc.: 2206-253
Inspection Document: 2206-253
Manufacturing Process: Infusion
Security Requirement: Confidential

Approved Non-Conformances: NO**Pending:** NO**DISPOSITION:** To Customer, Ship**SHIP METHOD:** FedEx Next Day**Certification Statement:**

Carbon by Design LP certifies the items listed above conform to all of the applicable work and quality standard required in the purchase order listed above and any additional work requirements referenced.

All in process quality standards have been met according to customer requirements and Carbon by Design internal quality and finish requirements. All materials Certification are available for inspection and will remain on file at Carbon by Design for a period of no less than ten years.

Finished Materials/Process Specifications:

Per Drawing Requirements

Additional Quality Clauses:

Per PO Requirements, 100% Inspection

Active Quality Systems:

ISO9001:2008

Inspector's Name:Joel Barrera**Signature:**Joel Barrera**Title:**Quality Manager**Date:** 11/27/13

